

PATENT
Customer No. 22,852
Attorney Docket No. 04853.0082

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Akihiko MARUYAMA et al.) Group Art Unit: 1634
Application No.: 09/979,558) Examiner: Diana B. Johansen
Int'l Filing Date: May 25, 2000)
§ 371 Filing Date: March 18, 2002)
For: NOVEL PSYCHROTROPHIC)
BACTERIUM AND DNA PROBE FOR)
DETECTING THE BACTERIUM)

RECEIVED

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

JUN 10 2003

TECH CENTER 1600/2900

Sir:

AMENDMENT AND RESPONSE TO RESTRICTION REQUIREMENT

Applicants now reply to the Office Action mailed May 6, 2003. Kindly amend the claims as follows:

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Amendments to the Claims

Please amend claims 1, 4, 5, and 9 as follows:

1. (Currently amended) A 16S rDNA which has comprising the base sequence of SEQ ID NO: 1.
2. (Original) An oligonucleotide probe which comprises part of the base sequence of SEQ ID NO:1.
3. (Original) The oligonucleotide probe according to claim 2 wherein said part of the base sequence of SEQ ID NO:1 comprises the base sequence of SEQ ID NO:2.
4. (Currently amended) The oligonucleotide probe according to claim 2 or 3 for detecting or identifying a at least one bacterium selected from ~~the group consisting of~~ *Psychrobacter pacificensis*, *Psychrobacter glacincola*, and analogs thereof.
5. (Currently amended) A method for detecting or identifying a at least one bacterium selected from ~~the group consisting of~~ *Psychrobacter pacificensis*, *Psychrobacter glacincola*, and analogs thereof, using an oligonucleotide probe comprising part of the base sequence of SEQ ID NO:1.
6. (Original) The oligonucleotide probe according to claim 2 or 3 for specifically detecting or identifying a bacterium belonging to *Psychrobacter pacificensis*.
7. (Original) A method for specifically detecting or identifying a bacterium belonging to *Psychrobacter pacificensis*, using an oligonucleotide probe comprising part of the base sequence of SEQ ID NO: 1.
8. (Original) *Psychrobacter pacificensis*, which is aerobic, gram-negative, nonmotile, colorless, non-sporulating and oxidase-positive.

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9. (Currently amended) The bacterium belonging to *Psychrobacter pacificensis* according to claim 6 8 wherein the bacterium is *Psychrobacter pacificensis* NIBH P2K6 (FERM BP-7106).

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Remarks

Applicants have amended claim 1 to present more standard claim language. Further, Applicants have amended claims 4 and 5 to recite alternative Markush language, as set forth in the MPEP at § 2173.05(h) and Appendix AI (Administrative Instructions under PCT), Example 20, p. AI-44 of the February, 2000 edition, as well as in the Training Materials for Examining Patent Applications with Respect to 35 U.S.C. § 112, First Paragraph - Enablement: Chemical/Biotechnical Applications, Examples H and J, release August, 1996. Finally, Applicants have amended claim 9 to correct a typographical error. Amended claim 9 now recites dependency from claim 8, rather than claim 6, correcting an error the Office perceptively noted in the instant Action. (Action at page 2).

The amendments involve merely cosmetic changes and typographical correction, and raise no issue of new matter. Moreover, none of the amendments narrow the scope of the original claims.

With the entry of this amendment, claims 1-9 are pending.

Unity of Invention

In the Lack of Unity of Invention election requirement dated May 6, 2003, the Office required election under 35 U.S.C. §§ 121 and 372 between Group I and II. Action at page 2. Applicants respectfully traverse the Lack of Unity rejection as improper, as set forth below.

The impropriety of the rejection is highlighted by the prior treatment of the claims, during the examination of the parent application in the PCT, PCT/JP00/03372

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(Publication No. WO 00/71705). During the examination, the International Preliminary Examination Report did not find that the original claims as filed lacked Unity of Invention (see specifically, second paragraph, section 3, subsection IV). The International Search Report also did not find any lack of Unity of Invention in the original claims. (For the Office's convenience, copies of the International Preliminary Examination Report and the International Search Report are resubmitted herewith).

While Applicants do not agree that any of the references of the International Search Report are patent-defeating, the search results do show that the claimed sequences, oligonucleotide probes, and detection methods could be searched together with the claimed bacteria. Thus, the claims do not require the Examiner to perform any additional searches. Similarly, the preliminary examination shows that the claimed sequences, oligonucleotide probes, and detection methods of Group I could be examined together with the claimed bacteria of Group II.

Nonetheless, the Office has required election of one of Groups I -II. (Action at page 2). The Office appears to assert that the claims do not share a "special technical feature," even though acknowledging that the bacteria of Group II include nucleic acids of Group I. *Id.* Focusing on Group I's inclusion of products comprising "part of the base sequence of SEQ ID NO:1," the Office contended that Group I is sufficiently broad so as to encompass known random decamers. Action at page 3. Therefore, concluded the Office, the products of Group I allegedly do not make a contribution over the art. *Id.* Applicants respectfully traverse, but nonetheless provisionally elect Group I to be fully responsive.

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Rule 13.2 describes "special technical features" as meaning those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art. See MPEP, Appendix AI (Administrative Instructions under the PCT), Annex B, Part 1, subsection (b). Applicants respectfully submit that focusing on, for example, "random decamers" does not consider the contributions of the inventions as a whole. To the contrary, it takes a piecemeal approach to the invention as claimed.

Rather, Applicants respectfully submit that the claimed inventions of both Groups I and II share special technical features relating to SEQ ID NO:1, which represents a contribution made by each of the inventions as a whole over the prior art. MPEP, Appendix AI (Administrative Instructions under the PCT), Annex B, Part 1, subsection (b); Rule 13.2. Accordingly, all of the claims form a single general inventive concept and satisfy the requirements for Unity of Invention under PCT Rule 13.1.

The Office also contends that Group II is drawn to a "complex, living microorganism composed of a myriad of different biomolecules." Action at pages 2-3. This contention, however, in no way destroys unity of Groups I and II.

Indeed, the situation here is analogous to Example 13 of Annex B, Part 2. There, unity exists between claims to (1) a filament, (2) a lamp including the filament, and (3) a searchlight including the lamp with the filament and an additional swivel arrangement. Analogizing the filament to SEQ ID NO:1, and the searchlight to the bacterium of Group II, there can be no question that unity exists between the claims of Group I and those of Group II. That is, as the searchlight contains the filament, the Group II bacteria comprise SEQ ID NO:1. Further, the "myriad of different biomolecules" in the bacterium

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(Action at page 3) parallels the additional "swivel arrangement" in the searchlight, and in no way destroys this unity. In Example 13, the special technical feature common to all the claims is the filament, regardless of the greater complexity of a searchlight compared to a filament. By the same reasoning here, the greater complexity of a living microorganism does not destroy unity based on shared special technical features.

In summary, Applicants specifically request that the claims of Group II (claims 8 and 9) be considered with the claims of Group I. Further, to be fully responsive to the requirement, Applicants provisionally elect, with traverse, the subject matter of Groups I, claims 1-7.

Please grant any extensions of time required to enter this amendment and response, and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: June 4, 2003

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